CLAIMS

1. A system for providing a regulated voltage to supply a load, including:

a source for providing a substantially constant current approximately corresponding to the maximum current likely to be drawn by the load; and

a regulation device receiving, on an input terminal, the constant current and providing, on an output terminal, the regulated load supply voltage, at least one capacitor being connected between the output terminal and the ground.

2. The system of claim 1, wherein the regulation device includes:

a hysteresis comparator receiving the load supply voltage and a reference voltage; and

at least one first MOS transistor, connected between the input terminal and the ground, the first transistor being controlled by the comparator by being biased in the linear portion of its current-voltage characteristic.

3. The system of claim 2, wherein the regulation device includes a Schottky diode connecting the input terminal to the output terminal.

4. The device of claim 2, wherein the regulation device includes a second MOS transistor, a source of which is connected to the input terminal and a drain of which is connected to the output terminal, the second transistor being controlled, from the hysteresis comparator, by a circuit introducing a delay at the turning-on of the second transistor.

5. The system of claim 1, wherein the constant current source is formed of a current-controlled switched-mode power supply, a third MOS transistor, connected between the ground and a first terminal of an inductance, a second terminal of which provides the constant current, wherein the third MOS transistor is controlled in the linear portion of its current-voltage characteristic.

6. The system of claim 1, wherein the constant current source is formed by a linear current regulator.

7. The system of claim 1, wherein the capacitor is a ceramic capacitor.

8. A device for limiting transient variations of a voltage provided by the system of claim 1 from a power converter forming the current source, including:

a first MOS power transistor connected between the input terminal and the ground;

a one-way conduction element connected between the input terminal and the output terminal; and

means for detecting the regulated voltage and for controlling the first transistor in the linear portion of its current-voltage characteristic.

9. The device of claim 8, wherein the one-way conduction component is formed of a second MOS transistor, a source of which is connected to the input terminal and a drain of which is connected to the output terminal.